

## REMARKS

Claims 1-10, 12-13 and 22-30 are pending. The Applicants' attorney has amended claims 1-2, 4-5, 7-10, 23, and 25-26 and has added new claims 28-30. In view of the following, all of the claims are in condition for allowance. **If, after considering this response, the Examiner does not agree that all of the claims are allowable, then it is respectfully requested that the Examiner schedule a teleconference with the Applicants' attorney to further the prosecution of the application.**

The Applicants' attorney thanks the Examiner for conferencing with him on 09 January 2006. During the conference, the Applicants' attorney and the Examiner discussed the teachings of the cited prior-art references, reasons that the art did not anticipate or obviate some of the claims, and amendments that may define others of the claims over the cited prior-art references.

### **Objection to claim 7, and rejection of claim 26 under 35 U.S.C. §112, second paragraph**

The Applicants' attorney has amended these claims to overcome this objection and rejection.

### **Rejection of claims 1-3 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,861,136 to Verlinden et al.**

#### **Claim 1**

Claim 1 as amended recites wells disposed on a substrate and operable to hold, in a liquid phase, respective conductive polymers that when in a solid phase form circuit devices that can be interconnected to form an electronic circuit.

For example, referring, *e.g.*, to FIGS. 2-4b and paragraphs 17-25 of the present application, wells 8 are disposed on a substrate 7 and are operable to hold, in a liquid phase, respective conductive polymers that, after hardening, form circuit devices (*e.g.*, a transistor 14) that can be interconnected (*e.g.*, by a connection layer 9) to form an electronic circuit.

In contrast, Verlinden et al. does not disclose wells disposed on a substrate and operable to hold, in a liquid phase, respective conductive polymers. Referring, e.g., to Verlinden's FIG. 1 and col. 3, lines 21-27, the spaces 3 are inoperable to hold a substance in a liquid phase.

### **Claims 2-3**

These claims are patentable by virtue of their dependencies from claim 1.

### **Rejection of claims 4-10, 12-13, and 22-27 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,468,638 to Jacobsen in view of Verlinden**

#### **Claim 4**

Claim 4 as amended recites a chemical treatment disposed on a surface region of a substrate beneath conductive polymer dots and operable to limit the sizes of the dots when the dots are in a liquid phase.

For example, referring, e.g., to paragraph 26 of the present application, surface regions of a substrate 7 may be chemically treated to limit the sizes of conductive-polymer dots that are printed as a liquid onto the regions. The chemical treatment may limit the sizes of the conductive-polymer dots by preventing splatter, bleeding, or spreading in manner that is similar to the manner in which car polish causes water to bead up on the hood of a car.

In contrast, as discussed above, Verlinden neither discloses nor suggests a technique for limiting the size of a dot of a substance when the substance is in a liquid phase.

And referring, e.g., to FIGS. 7A-7F, although one may conceivably be able to use Jacobsen's recessed regions in the substrate 59 to limit the size of a substance dot in a liquid phase, these recessed regions are not a chemical treatment disposed on a surface region of the substrate beneath multiple dots and operable to limit the sizes of the dots when the dots are in a liquid phase.

Therefore, the combination of Verlinden and Jacobsen fails to disclose or suggest the chemical treatment recited in claim 4.

### **Claims 23-24**

These claims are patentable by virtue of their dependencies from claim 4.

### **Claim 5**

Claim 5 recites groups of conductive polymer dots disposed on a substrate in predetermined locations, the conductive polymer dots within each group interconnected to form a respective electronic device.

For example, referring, *e.g.*, to FIGS. 2-4b and paragraphs 17-26 of the present application, a group of conductive polymer dots (*e.g.*, source region 16, drain region 18, channel region 20) is disposed on a substrate 7 in a predetermined location (*e.g.*, in adjacent wells 8), and the dots in the group are interconnected to form an electronic device (*e.g.*, transistor 14).

In contrast, although Verlinden and Jacobsen each make general mention of devices formed by conductive polymers (*e.g.*, the OLEDs in Verlinden's col 7, line 35 – col. 8, line 53 and the OLEDs in Jacobsen's col. 1, line 23), neither of these references, viewed separately or in combination, discloses or suggests an electronic device formed by a group of interconnected conductive polymer dots disposed on a substrate. Referring to FIGS. 7A-7F, Jacobsen's circuit blocks 14, which are floated into the recessed regions of the substrate 59, are not made from a conductive polymer, let alone from one or more groups of interconnected conductive polymer dots.

### **Claims 6-9 and 25-26**

These claims are patentable by virtue of their dependencies from claim 5.

### **Claim 10**

Claim 10, as amended, recites a circuit sheet comprising one and only one substrate, and transistors disposed on the substrate, formed from a conductive polymer, electrically isolated from one another, and operable to be interconnected to form an electronic circuit.

For example, referring, *e.g.*, to FIGS. 4a-6 and paragraphs 22-29 of the present application, transistors 14 and 38 are disposed on one and only one

substrate 7 and are formed from a conductive polymer, wherein the transistors are electrically isolated from one another and are operable to be interconnected (e.g., by a connection layer 9) to form an electronic circuit. Because the transistors are disposed on a single substrate, one can interconnect them by, e.g., using an ink-jet printer to print a connection layer 9 on the preformed transistors.

In contrast, referring to Jacobsen's FIGS. 7A-7F, although the circuit blocks 14 are disposed within the recessed regions of a single substrate 59, these blocks are not formed from a conductive polymer.

And referring to Verlinden's col. 8, lines 23-24, the disclosed OLEDs are formed between two substrates, and not on one substrate.

Consequently, the combination of Jacobsen and Verlinden neither discloses nor suggests conductive polymer transistors disposed on a single substrate.

#### **Claim 12**

This claim is patentable for reasons similar to those recited above in support of the patentability of claim 10.

#### **Claims 13 and 27**

These claims are patentable by virtue of their dependencies from claim 12.

#### **Claim 22**

This claim is patentable by virtue of its dependency from claim 1.

**CONCLUSION**

In light of the foregoing, claims 3, 6, 12-13, 22, 24, and 27 as previously pending, claims 1-2, 4-5, 7-10, 23, and 25-26 as amended, and new claims 28-30 are in condition for allowance, which is requested.

In the event additional fees are due as a result of this amendment, you are hereby authorized to charge such payment to Deposit Account No. 50-3718.

If, after considering this response, the Examiner does not agree that all of the claims are allowable, then it is respectfully requested that the Examiner contact the Applicants' attorney, Bryan Santarelli, at (425) 455-5575 to schedule an interview.

DATED this 26<sup>th</sup> day of January, 2006.

Respectfully submitted,

GRAYBEAL JACKSON HALEY LLP



\_\_\_\_\_  
Bryan A. Santarelli  
Attorney for Applicants  
Registration No. 37,560  
155-108th Avenue N.E., Ste 350  
Bellevue, WA 98004-5973  
(425) 455-5575